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ABSTRACT

This paper explains a research study that examined the contents of social studies textbooks in grades one to four in order to determine the concepts that the books presented. The purposes of the study were to determine: (1) if concepts from all of the social studies areas are represented in primary textbooks; (2) if fundamental social studies concepts are provided; and (3) what are the most frequently appearing social science and history concepts. The paper described the study's sample, procedures, findings and implications. Differences did occur among concepts presented by various publishers and among representations of various social studies areas within individual grades. Examples are provided for examining frequently occurring concepts and for linking them together to form rules or relationships. The study concludes that important and meaningful social studies concepts are not presented in grade one to four textbooks and that these books do not encourage students to form rules or to solve problems. Seven tables and 15 references are included. (JHP)

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AN ANALYSIS OF THE SOCIAL SCIENCE AND HISTORY CONCEPTS
IN ELEMENTARY SOCIAL STUDIES TEXTBOOKS
GRADES 1-4

by

Mary E. Haas

Paper presented at the
Annual Meeting of the
National Council for the Social Studies
November 18, 1988

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the Social Studies November 18, 1988.

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Introduction

The elementary social studies curriculum is receiving much criticism and many suggestions for changes. The present social studies curriculum has been described as having an outdated philosophy and lacking a sound psychological bases. (Akenson, 1987; LeRiche, 1987; Morrissett et al., 1980; Superka & Hawke, 1980; Hartoonian & Laughlin, 1986; Engle & Ochoa, 1986). Other critics have approached the curriculum by examining the content of the textbooks and concluded that the books are superficial and bland in their treatment of topics. (Larkins et al., 1987; Woodward et al., 1986). This research study examines the content of primary grade (1-4) textbooks by looking at the concepts from the social science disciplines that have traditionally provided the knowledge base for social studies. It seeks to find what concepts are presented at each grade. By examining the concepts it is possible to infer the more complex content that students have the potential to learn from the textbooks. The approach of this study allows for specific examination of the treatment of the academic disciplines as related to the hierarchy of learning (Gagne, 1970) and draws implications concerning the instruction presented by the primary texts of the selected series.

Questions Being Examined

There are three specific questions being asked about the concepts in the primary textbooks.

1. Are concepts from all of the academic disciplines represented in the primary textbooks?
2. Are the concepts in the textbooks the fundamental concepts of the academic disciplines that form the knowledge foundation of the social studies?
3. What are the most frequently appearing concepts from history and the social sciences presented in the primary textbooks?

The answers to these three questions help to identify the possible higher levels of understanding and knowledge that can be presented in the elementary series and can reasonably expect that students might know for valid achievement testing.

The Sample

The sample for the study is the first through fourth grade books in five elementary social studies series published between 1983 and 1985. Four of the series (Laidlaw, Heath, Silver Burdett, and Scott Foresman) are widely used in the U.S. The fifth series produced by Follett was completed shortly before the sale of the company and has not been as widely adopted as the other four.

Procedures

The definition of concept applied in the study is that of Gagne (1970) a class of objects or, stated another way, a noun classification based upon common characteristics. This definition is also the same definition that Stanley (1984) reports is used by the authors of many social studies methods textbooks.

The researcher reads the text of each book and records all of the social science and history concepts that are named. Concepts whose meanings are described but not named are not recorded. The presence of the concept in the text is what is recorded not the number of times a concept appears.

Rules governing the recording of the concepts include:

1. Concepts are not combined or grouped together based upon a common root definition. The single exception is the plural and singular of a concept are counted as identical. Therefore, if either the word "immigrant" or "immigrants" appears in a book, the concept immigrant is recorded for the book while the word "immigration" is counted as an additional concept.
2. The concepts are grouped into the academic disciplines of anthropology, economics, geography, history, political science, and sociology. If a concept is identified with two or more of the disciplines it is recorded in all of its possible disicipline classifications.

3. The concepts are classified into those that are fundamental to the discipline and those that are not fundamental. To determine if a concept is fundamental to the structure of the academic discipline, the concept must be identified as such by individuals familiar with each discipline. Concepts fundamental to the discipline are of a more general nature. The concept "landform" is a fundamental concept while the very specific concepts of mountain or plain are not. The authorities on the fundamental concepts of the disciplines in this study are three authors of elementary social studies methods textbooks who discuss concepts in detail and list a large number of concepts as examples for each of the disciplines. The list of fundamental concepts identified in this study is the compilation of the concepts identified by Banks (1977), Ellis (1981), and Michaelis (1986).

Trends In the Data

Table 1 indicates the number of concepts of all types present in each of the 20 primary textbooks. The totals clearly illustrate that there are considerable differences in the representation of the disciplines among the various publishers. There is a steady increase in the number of concepts presented between individual grades. At grade 1 four of the publishers

include fewer than 10 concepts. There is a big increase in the number of concepts offered between grades 2 and 3. There are many more geography concepts than concepts from any other discipline.

Insert Table 1 about here.

A total of 50% of the concepts in the primary books are geographic. Economic concepts make up the second largest group and account for 22% of the total. Political science ranks third and accounts for 15% of the total. History and sociology represent 9% and 6% of the total.

Not only are the disciplines unequally presented but the representativeness of the disciplines within the individual grades is also quite lopsided. Economics clearly dominates the content of both the first and second grade books. Economic concepts account for 20-67% of the concepts in single texts. In 7 of the 10 books more than 40% of the concepts are economic.

With the single exception of the Scott, Foresman series the third and fourth grade books are clearly the domain of geography. In grade 3 geography has from 2 to 5 times the number of concepts as any other discipline. The percent of geographic concepts ranges from 44-73% of the total number of concepts in the third grade books. In grade 4 geography represents twice the number of concepts of all other disciplines while the range within the sample is 46-73% of the total.

Insert Table 2 about here.

Table 2 illustrates the total number of different concepts by publisher and academic discipline. Again, the domination of geography and economics over the other disciplines is evident. Several additional trends are also evident. 1. There is a considerable difference between the number of concepts presented by the various publishers. The Chi-square difference is significant at the .0001 level. 2. The Scott, Foresman series has the best balanced presentation of the disciplines. Scott, Foresman also presents the greatest number of concepts from the disciplines of political science and history. 3. Silver Burdett is the series with the greatest total number of concepts presented to students. They rank first in the number of concepts presented from geography, economics, and sociology and tie for the second place ranking with Heath in history and rank third in the number of political science concepts. 4. Laidlaw with a total of 148 concepts presents the fewest number of concepts. However, Laidlaw does not rank last in all of the discipline lists. They do present the smallest number of concepts in sociology and history, disciplines which generally have small representations in the primary textbooks. Laidlaw ranks fourth in the presentation of geographic, political science and economic concepts.

Even though there is a statistically significant difference in the number of concepts presented in the different series, quality does not necessarily equate with quantity. All concepts are not of equal importance in learning the content of an academic discipline. Some concepts are considered fundamental to a discipline in that they provide the basis for true and logical relationships with other concepts while some concepts serve as examples of those fundamental concepts. Table 3 gives the total number of fundamental concepts for each discipline identified by the three authorities in this study. Each discipline has a sizable number of fundamental concepts. Learning at the rules and problem solving levels of the Gagne Hierarchy of Learning (1970) is not possible unless the student learns the fundamental concepts.

Insert Table 3 about here.

Table 4 illustrates the number of fundamental concepts in the disciplines present in each of the elementary series. The majority of the concepts are not those identified by the authorities as fundamental. Again the three disciplines of geography, political science, and economics appear in greater numbers. Four of the series have from 20-25 percent of their total concepts as fundamental while the Heath series has only 12%. While the actual number or percent of the fundamental

concepts may appear low, using concepts as examples of fundamental concepts has sound educational value, and the reader is cautioned against concluding the superiority of a series based upon the numbers in Table 4. Low numbers should not be interpreted as a poor presentation of concepts.

Insert Table 4 about here.

Of the total number of geography concepts 101 are of landforms or bodies of water, 31 refer to regions of the world associated with types of vegetation (desert and rainforest), 109 relate to globes, maps or the atlas, 56 are urban concepts and 12 are associated with rural settlement patterns. In the field of political science 31 concepts are political offices while 12 others describe roles of people as leader, citizen, follower, or volunteer. Using concepts as examples of other concepts is a sound procedure. A textbook series that takes the position that it wants to provide a large number of examples for concepts, may reduce the number of fundamental concepts presented, and do a better quality in their presentation. The data from this study does not address this consideration.

Within this study the concern about the frequency of concept inclusion is addressed in two ways. First with an analysis of the numbers of concepts in various categories and secondly by examining the actual concepts that appear most frequently.

Tables 5, 6, & 7 name the concepts that appear in at least 5 books within the sample. The "No." column gives the number of books that present the concept. The "No. publishers" column indicates how many of the 5 series provide the opportunity for a child to learn the concept at sometime within their series. The column "grade range" tells at what grade levels the concept appears. The asterisk indicates a concept considered fundamental to the study of the discipline.

Insert Table 5 about here.

An examination of Table 5 shows that of the 24 geographic concepts identified as frequently occurring, only 4 or 17% appear in all of the series. Another 14 or 58% appear in 4 of the series and the remaining 6 or 25% appear in only 3 series. The Silver Burdett series contains all of the 24 frequently appearing geographic concepts. Each of the other four publishers is missing from three to eleven of the 24 concepts. Since the concepts appear at various grade levels, there is also no guarantee that the degree of complexity with which they are presented is comparable. The concept atlas, for example is presented in both grades 1 and 4. The child who encounters the atlas section of the textbook in grade 4 is receiving a better instruction in the concept atlas than the child who receives a written reference to an atlas as a collection of maps.

Insert Table 6 about here.

Table 6 identifies the 13 most frequently appearing economic concepts. Seven of these concepts or 54% are considered fundamental to the discipline. Economics is the discipline in which the greatest percent of the most frequently occurring concepts are also fundamental to the discipline. This may be attributed to the work of the Joint Council on Economic Education in identifying the fundamental concepts as early as 1977. (Saunders, et.al. 1984) All of the publishers have included 6 concepts or 46% of most frequently occurring concepts.

Insert Table 8 about here.

Table 7 gives the most frequently occurring concepts from the discipline of political science. Silver Burdett, Scott Foresman, and Heath include all of the 8 most frequently presented political science concepts. Fundamental concepts account for 50% or 4 of the 8 most frequently appearing concepts. Two of the concepts are specific to the structure of the government of the U.S. The greatest agreement among the publishers is in political science with 75% of the concepts appearing in all series.

Because of the small number of frequently occurring concepts for both history and sociology charts are unnecessary for illustration. Sociology has only one concept presented the minimum of 5 times and that is population a concept also held as fundamental by the discipline of geography. The two concepts of change and immigrant are the only historical concepts that appear in more than 5 primary textbooks. Change is the historical concept that is considered to be fundamental, and it appears 10 times in a total of 4 of the series.

The tables reveal that there is no agreement on the appropriate grade level for presenting any of the most frequently appearing concepts. Perhaps more importantly there is little unanimous agreement among the publishers (16 of 46) on which concepts to include. Those who claim that the textbooks are all the same and that there is a common curriculum in social studies at the primary level find little in these charts to support their position. Although there may be a commonly offered theme called the expanding environment or horizon in the curriculum as indicated by text titles, presentations of the knowledge of the academic disciplines which provide much of the content of social studies does not appear to be as common. Certainly this has implications for the validity of standardized achievement tests if nothing else.

A second way of examining the most frequently occurring concepts is to look at the actual concepts presented and how they can be linked together to form what Gagne (1970) calls rules or true relationships between the concepts. These rules are more

difficult to learn than the individual concepts. They provide the logical linkages and, therefore, greater depth in the content of the discipline. Gagne (1970) also explains that the most difficult learning or problem solving is done by applying appropriate rules that have been learned.

Rules that can be formed from the most frequently occurring geography concepts include:

1. The large rivers flow from the mountains through the plateaus and plains into the oceans.
2. Transportation has enabled people to move from the city to the suburbs and has increased both the size and numbers of suburbs.
3. Cities are centers of transportation.
4. The compass rose shows the cardinal directions and the in-between directions.
5. Many cities are located on oceans, lakes, and rivers where water transportation is available.
6. Transportation through the mountains and plateaus is more difficult than it is over the plains.
7. The climate of a place has a direct relationship on the population that the area can support.
8. The climates of a continent vary with its distance from the equator.
9. In the atlas you can find the names and locations of many mountains, plains, rivers, lakes, cities, deserts, oceans, peninsulas, and plateaus.

10. The equator is midway between the North Pole and the South Pole.

Rules from the most frequently occurring economic concepts include:

1. People trade with money to fulfill their needs and wants for goods and services.
2. Natural resources are turned into goods in factories or industries.
3. People have a greater number of wants than they have needs.
4. Transportation links the natural resources of the farm with the factory.
5. Nations import natural resources and goods from other nations.
6. Money makes it easier to trade for the goods and services you want.
7. A tax is often placed on goods and services and goods that we import.
8. Money from taxes helps to improve transportation.

Rules from the most frequently occurring political science concepts include:

1. Congress makes the laws and the president sees that laws are enforced.
2. All citizens, including the president must obey the law.
3. All governments make laws and rules to help it run the nation.

4. Some laws create taxes which all citizens pay.
5. Congress and the president do not always agree on laws, taxes, and rules.

Rules created by combining the concept in Tables 5-7 include:

1. Government provides services to citizens.
2. Government raises money through taxes.
3. The laws of a government may regulate farms, industry, transportation and natural resources as well as citizens.

Implications of the Findings

Whereas there may be additional rules that can be made with the concepts, it is necessary to consider some problems and omissions with the list of concepts and sample rules generated. An examination of the rules raises important concerns. Can a satisfactory curriculum for grades 1-4 be limited to these few rules? Are there sufficient rules to enable students to solve problems or explain events in social studies? Are there important other rules that need to be included to make the learning more comprehensive and less spotty?

Some of the rules such as numbers 7 and 8 of the geography concepts are over simplifications and only accurate under certain circumstances. There is a need for the textbooks to include additional important concepts so more accurate rules may be understood. It does seem strange that the geographic concepts of map and globe do not appear more frequently in the textbooks.

Another concept that is missing from the economic list is scarcity. The assumption on which the discipline of economics is based is the scarcity of resources. There can not be any meaningful learning of economics without learning about scarcity. Others have criticized the presentation of citizenship in the textbooks as one of over emphasis on conformity to authority. (Larkins, et al., 1987; & Engle & Ochoa, 1986) They argue that not only is there too little information about government but that the emphasis is on conformity to authority the wrong value for a democracy. The list of most frequently occurring political science concepts is largely devoted to laws and authority figures while the concepts of rights and individual decision making are not in all of the series. Here again, is support for the claims of the critics. Clearly, this study illustrates that important content necessary to attain the knowledge, thinking skills, and values needed in social studies is missing from the primary textbooks.

The number of concepts and the frequency of their presentation in the various textbooks indicate that few concepts are presented at multiple grade levels. Therefore, it would appear that the series provide little review of previously learned content and extension of the content at subsequent grade levels. This might be an indication that publishers are more interested in teaching skills than the content of the disciplines. Another explanation might be that they do not believe that children are interested in or can learn the content of the disciplines. Whatever the reasons the lack of an

agreement on content and the lack of reinforcement of the learning between grades are serious problems. Presenting a concept at various grade levels using ever more abstract examples is commonly referred to as the spiral curriculum (Michaelis, 1986; Banks, 1977; & Ellis 1981) and discussed in many social studies methods books. The idea is that a concept is reinforced and the depth and importance of its meaning better understood through this procedure. The small number of occurrences of the same concept at different grades levels indicates that this attempt is not being made by most series in the sample. However, the series do apply the spiral curriculum principle to the process skills. The argument that the primary grade social studies learning is necessary for the vocabulary and concept formation of students in the middle grades and secondary schools is difficult to make if the vocabulary and concepts are not present in the primary books.

The rule learning and problem solving levels of learning within the social studies is limited by the concepts presented. (Gagne, 1970) The fact that there are few concepts which textbook publishers have agreed are important to teach to primary students and the fact that many of the concepts are not fundamental to the academic disciplines, mean that children are severely limited in their organization of knowledge. The lack of systematic presentation of the concepts and their relationships to higher levels of learning provides for a disjointed presentation. This disjointed presentation violates principles of information processing. Such a presentation does not

contribute to the ability of the learner to recognize important ideas and conclusions, and it severely handicaps them in recalling what they have learned and in applying their learning to the world outside of a specific lesson. Thus, transfer of learning is not encouraged.

Examining the rules that can be made by linking the concepts appearing most frequently in the sample appears to confirm what others have declared. Important, meaningful content is not presented in the primary textbooks. Nor are the students required to do the advanced thinking required to form rules and solve problems. It is understandable that textbook publishers do not want to produce books that are identical to that of the competition nor do school systems probably want identical textbooks as this would decrease local control. However, the academic disciplines do have specific vocabularies that are necessary for citizens to learn and understand so that they will be able to question and understand the specialists they hire or otherwise encounter through the media. Clearly, there is a need to pay greater attention to the content of the disciplines presented in the elementary textbooks. This study also indicates that some of the important ideas from learning theories are not being applied in the textbooks.

Those who write and interpret the standardized tests for social studies should also find this study of interest. If they seek to ask content questions from any of the academic disciplines that have traditionally provided a foundation of knowledge for the social studies, they must write questions that

examine the content presented to all of the students. Since there is little agreement among the books on the content that they present and the vocabulary that is presented, the range of fair questions in content is quite limited.

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TEXTBOOKS EXAMINED

D. C. Heath and Company. Lexington, 1985.

Homes and Neighborhoods

Neighborhoods and Communities

Communities large and small

Regions Near and Far

Follett Publishing Company. Chicago, 1983.

Home and School

People in Neighborhoods

Our Communities

World Regions

Laidlaw Brothers. River Forest, 1985.

Living in Families

Living in Neighborhoods

Living in Communities

Living in World Regions

Scott, Foresman and Company. Glenview, 1983.

Families and Friends

Neighborhoods Near and Far

City, Town, and Country

Regions

Silver Burdett Company. Morristown, 1984.

Families and Neighborhoods

Neighborhoods and Communities

Communities and Resources

States and Regions

Textbook Concepts

Table 1

Number of Concepts by Grade, Publisher, and Discipline

Gr.	Publisher	Pol.Sc.	Geog.	Econ.	Soc.	Hist.	Total
01	Heath	0	8	12	1	0	21
01	Follett	1	0	5	1	1	8
01	Laidlaw	2	0	2	1	1	6
01	Scott	1	1	3	1	1	7
01	Silver	0	1	4	0	1	6
02	Heath	6	1	7	0	1	15
02	Follett	5	13	13	0	0	31
02	Laidlaw	4	0	5	3	1	13
02	Scott	10	10	7	4	4	35
02	Silver	9	0	12	0	0	21
03	Heath	14	30	15	1	0	60
03	Follett	2	40	8	2	2	54
03	Laidlaw	11	27	6	2	3	49
03	Scott	18	46	19	4	16	103
03	Silver	5	43	14	0	0	62
04	Heath	6	42	15	7	21	91
04	Follett	9	71	5	8	3	96
04	Laidlaw	1	52	23	2	2	80
04	Scott	31	13	14	5	13	76
04	Silver	9	92	26	16	21	164
totals		124	490	215	58	91	988

Textbook Concepts

Table 2

Number of Concepts in Textbooks which Authorities Identify as
Fundamental by Publisher and Discipline

Discipline	Follett	Heath	Laidlaw	Scott	Silver
geography	20	7	20	13	31
political sc	8	9	5	17	7
economics	6	7	7	10	9
sociology	2	1	1	5	1
history	2	0	4	9	2
total	38	24	37	54	50
percent	20	13	25	24	20

Table 3

Total Number of Concepts Textbooks by Publisher and Discipline

discipline	Follett	Heath	Laidlaw	Scott	Silver
geography	124	81	79	70	136
political sc	17	26	18	60	23
economics	31	49	36	43	56
sociology	11	9	8	14	16
history	6	22	7	34	22
totals	189	187	148	221	253

Table 4

Number of Basic Concepts Identified by Authorities for Each
Discipline

Geography	67
Political Science	61
Economics	68
Sociology	54
History	47

Textbook Concepts

Table 5

Most Frequently Included Geography Concepts

No.	Concept	Grade range	No. publishers
11	mountain	1-4	4
9	plain	1-4	5
8	river	3-4	4
7	continent*	2-4	4
7	equator*	2-4	5
7	suburb	3-4	5
7	transportation*	2-4	5
6	community*	2-4	4
6	North pole	2-4	4
6	South pole	2-4	4
6	lake	1-4	3
5	atlas	1-4	3
5	cardinal directions	2-4	4
5	cities	3-4	3
5	climate*	3-4	4
5	compass rose	3-4	4
5	desert	3-4	3
5	hemisphere	3-4	4
5	in-between directions	3-4	3
5	ocean	2-4	4
5	peninsula	3-4	4
5	plateau	3-4	4

Textbook Concepts

Table 5 (continued)

5	population*	3-4	3
5	scale	3-4	4

* indicates fundamental to discipline

Table 6

Most Frequently Included Economic Concepts

No.	Concept	Grade range	No. publishers
12	needs*	1-4	5
12	service*	1-4	5
11	goods*	1-4	5
9	wants*	1-4	4
8	trade*	2-4	5
8	natural resource	3-4	5
7	factory	1-4	3
7	farm	1-4	3
7	money*	1-4	5
7	transportation	3-4	4
6	tax*	2-4	4
5	import	3-4	4
5	industry	3-4	4

* indicates fundamental to the discipline

Textbook Concepts

Table 7

Most Frequently Included Political Science Concepts

No.	Concept	Grade range	No. publishers
11	law*	1-4	5
9	president	1-4	5
8	government*	3-4	5
6	citizen	2-4	5
6	nation*	2-4	4
6	rules*	1-3	5
6	taxes	2-4	5
5	congress	2-4	4

* indicates fundamental to the discipline